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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,031

Applicant(s)

REINHARD ET AL.

Examiner

THOMAS MORRISON

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54-107 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 54-107 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 4/28/2011 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The information disclosure statement filed 4/28/2011 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 54-55, 58-61, 93, 100 and 103-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 61-175552 (hereinafter "JP'552") (reference of record in this case) in view of U.S. Patent Publication No. 2005/0052711 (Schaede) (hereinafter "Schaede").

Regarding claim 54, Figs. 1-2 of JP'552 show sheet-processing machine for processing sheets each comprising a plurality of copies, the sheet-processing machine comprising a plurality of modules (including 19, 20 and 21) through which the sheets are transported one after the other along a sheet conveying direction (from right to left), the plurality of modules (including 19, 20 and 21) including a sheet feeder module (19) for feeding the sheets and one or more downstream sheet-processing modules including at least an inspection module (including 20) for monitoring the print quality of the sheets,

wherein the inspection module (including 20) comprises a first transport cylinder (23) for transporting the sheets with a front side facing a first inspection device (including 3 and 4), which first inspection device (including 3 and 4) inspects the front side of the sheets while being transported by the first transport cylinder (23) and supported against a circumference of the first transport cylinder (23), and a second transport cylinder (24) for transporting the sheets with a rear side facing a second inspection device (including 6 and 7), which second inspection device (including 6 and 7) inspects the rear side of the sheets while being transported by the second transport cylinder (24) and supported against a circumference of the second transport cylinder (24),

wherein the inspection module (including 20) comprises a third transport cylinder (25) having an additional inspection device (including 9 and 10) for inspecting light-transmitting capacity of the sheets,

wherein the additional inspection device (including 9 and 10) comprises an image sensor (10) and a light source (9) for inspection by transmission, and

wherein the first and second inspection devices (including 3 and 4, and including 6 and 7, respectively) are arranged outside of the casing of the first and second transport cylinders (23 and 24) respectively,

JP'552 discloses the third transport cylinder (25), but does not explicitly disclose that the third transport cylinder (25) has a solid transparent casing as claimed. Also, JP'552 discloses the additional inspection device (including 9 and 10) with the light source (9) and the image sensor (10), but does not disclose that the light source (9) is arranged within the transparent casing of the third transport cylinder (25) and the image sensor (10) is arranged outside of the transparent casing of the third transport cylinder, as claimed.

Schaede discloses that it is well known in the art to provide a drum and inspection arrangement (Figs. 1-3) including a cylinder (Fig. 2) with a solid transparent casing (1), a light source (4) inside the casing (1) of the cylinder, and an image sensor (3) outside of the cylinder, for the purpose of inspecting sheets conveyed on the cylinder. Because both Schaede and JP'552 teach drum and inspection arrangements for inspecting sheets conveyed on cylinders, it would have been obvious to one skilled in the art to substitute the drum and inspection arrangement (including 1, 4 and 3) of Schaede for the drum and inspection arrangement (including 25, 9 and 10) of JP'552 to achieve the predictable result of inspecting sheets conveyed on the cylinder. Thus, all of the limitations of claim 54 are met by the cited combination of references.

Regarding claim 55, Figs. 1 and 2 of the JP'552 show that the inspection devices (including 3 and 4, and including 6 and 7) comprise an image sensor (4 or 7) and a light source (3 or 6) for inspection by reflection.

Regarding claim 58, Figs. 1 and 2 of JP'552 show that the inspection module comprises an even number (i.e., 6) of transport cylinders for transporting the sheets from a sheet input interface to a sheet output interface of the inspection module.

Regarding claim 59, as best understood, Figs. 1 and 2 of JP'552 show that the sheet feeder module (19) and inspection module (including 20) each have their own respective side frame panels.

Regarding claim 60, Figs. 1 and 2 of JP'552 show that the sheet feeder module (19) and inspection module (including 20) each have at least one transport cylinder which is fixed to the side frame panels.

Regarding claim 61, as best understood, Figs. 1 and 2 of JP'552 show that the side frame panels of the sheet feeder (19) module and inspection module (including 20) are fixed to one another as one continuous device.

Regarding claim 93, Figs. 1-2 of JP'552 show that a transport module (including 22) is further provided, which transport module (22) is interposed between the sheet feeder module (19) and the inspection module (including 20).

Regarding claim 100, Fig. 2 of JP'552 shows that columns (unnumbered feet in Fig. 2) are provided for supporting the sheet feeder module (19), the transport module (including 29) and the inspection module (including 20).

Regarding claim 103, Fig. 2 of JP'552 shows that columns (unnumbered feet in Fig. 2) are provided for supporting the sheet feeder module (19), the transport module (including 29) and the inspection module (including 20).

Regarding claim 104, Fig. 2 of JP'552 shows that an output transport cylinder at a sheet output interface of the inspection module (including 20) and an output transport cylinder at a sheet output interface of the sheet feeder module (19) are arranged at a same height. See, e.g., cylinder 22 and cylinder 25 at the same height in Fig. 2.

Regarding claim 105, Fig. 2 of JP'552 shows that transfer of a sheet from an upstream module to a downstream module is effected by means of an output transport cylinder located at a sheet output interface of the upstream module which transfers the sheet to an input transport cylinder located at a sheet input interface of the downstream module. See, e.g., cylinders 22 and 23.

Regarding claim 106, Fig. 2 of JP'552 shows that the output transport cylinder (22) of the upstream module and the input transport cylinder (23) of the downstream module have opposite directions of rotation.

Regarding claim 107, Fig. 2 of JP'552 shows that a circumference of the input and output transport cylinders are of a same size. See, e.g., cylinders 23 and 25.

3. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'552 in view of Schaeede as applied to claim 54 above, and further in view of U.S. Patent No. 6,166,366 (Lewis et al.). JP'552 discloses inspection devices (including 3 and 4, and including 6 and 7) that include a light source (3 or 6) and a light sensor (4 or

7), but JP'552 does not explicitly disclose that such light source and light sensor include a UV light source and a light sensor, as claimed

Lewis et al. discloses that it is well known to provide a printing apparatus with a UV light source and light sensor that detects such light source, for the purpose of detecting defects in printed materials conveyed in the printer apparatus. See, e.g., col. 14, line 55 - col. 15, line 10, abstract, and Figs. 1-18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the transport cylinder of the apparatus of JP'552 in view of Schaede with a UV light source and a UV light sensor for the purpose of detecting defects in materials conveyed on the printing apparatus of JP'552 in view of Schaede, as taught by Lewis et al. Thus, all of the limitations of claim 56 are met by this combination of references.

4. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'552 in view of Schaede as applied to claim 54 above, and further in view of U.S. Patent No. 4,299,325 (Quinton et al.). JP'552 discloses that it is well known to use inspection devices (including 3 and 4, and including 6 and 7) for detecting defects in printed materials, but JP'552 does not explicitly disclose that such inspection devices include a magnetic field sensor, as claimed

Quinton et al. discloses that it is well known to provide a sheet handling apparatus with a magnetic field sensor for the purpose of detecting defects in printed materials. See, e.g., Fig. 1 and col. 2, lines 31-36 of Quinton et al. Because JP'552 and Quinton et al. both teach sensors for detecting defects in printed materials, it would have been obvious to one skilled in the art to substitute the detecting device (2) of

Quinton et al. for the detecting devices (including 3 and 4, and including 6 and 7) of JP'552 to achieve the predictable result of detecting defects in printed materials. Thus, all of the limitations of claim 57 are met.

5. Claims 62-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over the JP'552 in view of Schaede as applied to claim 54 above, and further in view of Canadian Publication No. 2407810.

Regarding claim 62, JP'552 in view of Schaede discloses all of the limitations of claim 62, except for a numbering module, as claimed.

Canadian Publication No. 2407810 discloses that it is well known in the art to provide a numbering module (including 12-14) downstream of an inspection module (including 7 and 8), for the purpose of applying serial numbering to sheets. See, e.g., English abstract of Canadian Publication No. 2407810. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of JP'552 in view of Schaede with a numbering module for the purpose of applying serial numbering to sheets, as taught by Canadian Publication No. 2407810.

Regarding claim 63, as best understood, the numbering module (including 12-14) of Canadian Publication No. 2407810 added to JP'552 according to the teachings of this Canadian publication has its own respective side frame panel. Also, Canadian Publication No. 2407810 shows that it is well known in the art to provide a sheet feeder module (1) and an inspection module (including 7 and 8) such that they have their own respective side frame panels which allows these different modules to be switched out with different modules, as shown in Figs. 1 and 2 of Canadian Publication No. 2407810

in the case of switching out different inspection modules. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of JP'552 in view of Schaede with feeder, inspection and numbering modules that each have their own respective side frame panels to allow these different modules to be switched out with different modules, as taught by Canadian Publication No. 2407810.

Regarding claim 64, Fig. 3 of Canadian Publication No. 2407810 shows that it is well known to provide the numbering module (including 12-14) with a cut-out, for engagement and support of side frame panels of an inspection module (including 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the numbering module of JP'552 in view of Schaede and Canadian Publication No. 2407810 with a cut out for engagement and support of the inspection module (including 20) of JP'552, as shown in Canadian Publication No. 2407810.

Regarding claim 65, Fig. 1 of Canadian Publication No. 2407810 shows that the numbering module (including 12-14) is arranged behind an inspection module (including 7) with respect to a sheet conveying direction, so as to apply the numbering only to those sheets which have passed the quality check carried out by the inspection module. Providing this same numbering module arrangement (including 12-14) of Canadian Publication No. 2407810 next to the inspection module (including 20) of JP'552, in a manner as shown in Fig. 1 of Canadian Publication No. 2407810, will result in the same numbering module arrangement as set forth in claim 65.

Regarding claim 66, Fig. 1 of Canadian Publication No. 2407810 shows that the numbering module (including 12-14) comprises at least one numbering unit (13) for printing a serial number on the sheets to be processed. See also page 9 of the specification of Canadian Publication No. 2407810.

Regarding claim 67, Fig. 1 of Canadian Publication No. 2407810 shows that the numbering module (including 12-14) comprises two numbering units (13 and 14) which are arranged on a counter-pressure cylinder (12) with two printing segments. This same numbering module arrangement taught in Fig. 1 of Canadian Publication No. 2407810 would be applied to the apparatus of JP'552 in view of Schaede.

Regarding claim 68, Fig. 1 of Canadian Publication No. 2407810 shows that a marking device (12 or 15) for applying a marking to the sheets is arranged in the numbering module (including 12-14).

Regarding claim 69, Fig. 1 of Canadian Publication No. 2407810 shows that the marking device (15) is arranged upstream of a numbering unit (13 or 14) of the numbering module (including 12-14). This same numbering module arrangement would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 70, Fig. 1 of Canadian Publication No. 2407810 shows that the marking device (12) is arranged on a counter-pressure cylinder of the numbering module (including 12-14). This same numbering module arrangement would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 71, Fig. 1 of Canadian Publication No. 2407810 shows that an inking unit module (15) is provided which, in conjunction with the numbering module (including 12-14), forms a printing module.

Regarding claim 72, Fig. 1 of Canadian Publication No. 2407810 shows that inking unit rollers of the inking unit module (15) are mounted in side frame panels which are connected to side frame panels of the numbering module (including 12-14). This same inking unit module and numbering module arrangement would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 73, Fig. 1 of Canadian Publication No. 2407810 shows that a form cylinder (12) is provided in the numbering module (including 12-14) for cooperation with the inking unit module (15) to form the printing module. This same numbering module arrangement and inking unit module arrangement would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 74, Fig. 1 of Canadian Publication No. 2407810 shows that the printing module uses an output transport cylinder of an inspection module (including 7) upstream of the numbering module (including 12-14) as counter-pressure cylinder for the form cylinder (12). This same arrangement would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 75, as best understood, the inking unit module (15) of Canadian Publication No. 2407810 is removable installed (i.e., capable of being removed) on the numbering module (including 12-14) of Canadian Publication No. 2407810. This same arrangement would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 76, Fig. 1 of Canadian Publication No. 2407810 shows that the form cylinder (12) is smaller than the cylinders of the inspection module (including 7), but does not explicitly show that the form cylinder (12) is of a same size as the output transport cylinder acting as counter-pressure cylinder. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the size of the form cylinder (12) the same size as the output transport cylinder acting as the counter-pressure cylinder, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. One of ordinary skill in the art would have been motivated to make these two parts the same size, e.g., to simplify the manufacturing process by limiting the number of different sized parts.

6. Claims 77-86 and 101-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'552 in view of Schaede as applied to claim 54 above, and further in view of Canadian Publication No. 2407810.

Regarding claim 77, JP'552 in view of Schaede discloses all of the limitations of claim 62, except for a marking module, as claimed.

Canadian Publication No. 2407810 discloses that it is well known in the art to provide a marking module (including 12-14) downstream of an inspection module (including 7 and 8) for the purpose of applying serial numbering to sheets. See, e.g., English abstract of Canadian Publication No. 2407810. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of JP'552 as modified by Schaede with a marking module for the purpose of

applying serial numbering to sheets, as taught by Canadian Publication No. 2407810. Page 9, lines 16-26 of the specification of Canadian Publication No. 2407810 disclose that the marking module (including 12-14) is used for marking a sheet as usable or unusable depending on a monitoring result of an inspection module (including 7) of Canadian Publication No. 2407810 . This same arrangement taught by Canadian Publication No. 2407810 would be applied to the apparatus of JP'552 in view of Schaede downstream of the inspection module (including 20) of JP'552 in view of Schaede with respect to the sheet conveying direction.

Regarding claim 78, as best understood, the marking module (including 12-14) of Canadian Publication No. 2407810 added to JP'552 according to the teachings of this Canadian publication has its own respective side frame panel. Also, Canadian Publication No. 2407810 shows that it is well known in the art to provide a sheet feeder module (1) and an inspection module (including 7 and 8) such that they have their own respective side frame panels which allows these different modules to be switched out with different modules, as shown in Figs. 1 and 2 of Canadian Publication No. 2407810 in the case of switching out different inspection modules. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of JP'552 with feeder, inspection and numbering modules that each have their own respective side frame panels to allow these different modules to be switched out with different modules, as taught by Canadian Publication No. 2407810.

Regarding claim 79, Figs. 1-3 of Canadian Publication No. 2407810 show that the marking module (including 12-14) has a cut-out for engagement and support of the

side frame panels of an inspection module (including 7). This same arrangement taught by Canadian Publication No. 2407810 would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 80, Fig. 1 of Canadian Publication No. 2407810 shows that a marking device (13 or 14) for applying a marking to the sheets is arranged in the marking module (including 12-14).

Regarding claim 81, Fig. 1 of Canadian Publication No. 2407810 shows that an inking unit module (15) is provided which, in conjunction with the marking module (including 12-14), forms a printing module.

Regarding claim 82, Fig. 1 of Canadian Publication No. 2407810 shows that inking unit rollers of the inking unit module (15) are mounted in side frame panels which are connected to side frame panels of the marking module (including 12-14).

Regarding claim 83, Fig. 1 of Canadian Publication No. 2407810 shows that a form cylinder (12) is provided in the marking module (including 12-14) for cooperation with the inking unit module (15) to form the printing module.

Regarding claim 84, Fig. 1 of Canadian Publication No. 2407810 shows that the printing module uses an output transport cylinder of the inspection module (including 7) upstream of the marking module (including 12-14) as counter-pressure cylinder for the form cylinder (12). This same arrangement taught by Canadian Publication No. 2407810 would be applied to the apparatus of JP'552 as modified by Schaede.

Regarding claim 85, the inking unit module (15) is removably installed (i.e., capable of being removed) on the marking module (including 12-14).

Regarding claim 86, Fig. 1 of Canadian Publication No. 2407810 shows that the form cylinder (12) is smaller than the cylinders of the inspection module (including 7), but does not explicitly show that the form cylinder (12) is of a same size as the output transport cylinder acting as counter-pressure cylinder. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the size of the form cylinder (12) the same size as the output transport cylinder acting as the counter-pressure cylinder, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. One of ordinary skill in the art would have been motivated to make these two parts the same size, e.g., to simplify the manufacturing process by limiting the number of different sized parts.

Regarding claim 101, Fig. 1 of Canadian Publication No. 2407810 shows that it is well known in the art to provide an expansion module (15) interposed between an inspection module (including 7) and a marking module (including 12-14) for the purpose of printing additional information on sheets such as signature and/or date. See, e.g., page 9, lines 10-15 of this Canadian publication. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of JP'552 in view of Schaeede with an expansion module between the inspection module (including 20) of JP'552 and the marking module added according to the teachings of this Canadian publication, for the purpose of printing additional information on sheets, as taught by this Canadian publication.

Regarding claim 102, Fig. 2 of JP'552 shows that columns (unnumbered feet in Fig. 2) are provided for supporting the sheet feeder module (19) and the inspection module (including 20). Also, Fig. 1 of Canadian Publication No. 2407810 shows columns (unnumbered frame elements around expansion module 15) are provided for supporting the expansion module (15). This same column arrangement would be provided on the apparatus of JP'552 in view of Schaeede according to the teachings of this Canadian publication.

7. Claims 87-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'552 in view of Schaeede as applied to claim 54 above, and further in view of Canadian Publication No. 2407810.

Regarding claim 87, JP'552 discloses all of the limitations of this claim, except for a marking device, as claimed.

Canadian Publication No. 2407810 discloses that it is well known in the art to provide a marking device (including 12-14) for the purpose of applying serial numbering to sheets. See, e.g., English abstract of Canadian Publication No. 2407810. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of JP'552 as modified by Schaeede with a marking device for the purpose of applying serial numbering to sheets, as taught by Canadian Publication No. 2407810.

Regarding claim 88, Canadian Publication No. 2407810 discloses that the marking device (including 12-14) marks an edge region of a column and/or row in which a fault detected by an inspection module (including 7) of Canadian Publication No.

2407810 is located. See, e.g., page 9, lines 16-26 of Canadian Publication No. 2407810.

Regarding claim 89, Canadian Publication No. 2407810 discloses that the marking device (including 12-14) marks a column and outputs a row number in which a fault detected by the inspection module is located. See, e.g., page 9, lines 16-26 of Canadian Publication No. 2407810.

Regarding claim 90, Canadian Publication No. 2407810 discloses that the marking device (including 12-14) is arranged to apply the marking as unusable selectively to individual copies or in relation to individual copies on a sheet. See, e.g., page 9, lines 16-26 of Canadian Publication No. 2407810.

Regarding claim 91, as best understood, Figs. 1-3 of Canadian Publication No. 2407810 disclose that the marking device (including 12-14) comprises a plurality of print heads (13 and 14) which are distributed uniformly transversely to the sheet conveying direction.

Regarding claim 92, page 9, lines 4-8 of Canadian Publication No. 2407810 disclose that the marking device (including 12-14) is an inkjet printing unit.

8. Claims 94-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'552 in view of Schaede as applied to claim 93 above, and further in view of Canadian Publication No. 2407810.

Regarding claim 94, JP'552 in view of Schaede discloses all of the limitations of this claim, except for an inking unit module, as claimed.

Canadian Publication No. 2407810 discloses that it is well known in the art to provide an inking unit module (including 12-14) for the purpose of applying serial numbering to sheets. See, e.g., English abstract of Canadian Publication No. 2407810. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of JP'552 as modified by Schaeede with an inking unit module for the purpose of applying serial numbering to sheets, as taught by Canadian Publication No. 2407810. Providing the apparatus of JP'552 in view of Schaeede with an inking unit module in a manner as taught by Fig. 1 of Canadian Publication No. 2407810, results in such inking unit module being provided which, in conjunction with the transport module (22) of JP'552, forms a printing module.

Regarding claim 95, Figs. 1-3 of Canadian Publication No. 2407810 disclose that inking unit rollers (13 and 14) of the inking unit module (including 12-14) are mounted in side frame panels which are connected to side frame panels of a transport module (including 3) of Canadian Publication No. 2407810. This same inking unit module arrangement taught by Fig. 1 of Canadian Publication No. 2407810 would be applied to the apparatus of JP'552 as modified by Schaeede.

Regarding claim 96, Fig. 1 of Canadian Publication No. 2407810 shows that a form cylinder (3) is provided in the transport module (including 3) of Canadian Publication No. 2407810 for cooperation with the inking unit module (including 12-14) to form the printing module. This same arrangement of the form cylinder and inking unit module that is taught by Fig. 1 of Canadian Publication No. 2407810 would be applied to the apparatus of JP'552 as modified by Schaeede.

Regarding claim 97, Fig. 1 of Canadian Publication No. 2407810 shows that the printing module uses an output transport cylinder (2) of a sheet feeder module (1) upstream of a transport module (including 3) as counter-pressure cylinder for the form cylinder (3). This same arrangement of the output transport cylinder as counter-pressure cylinder for a form cylinder that is taught by Fig. 1 of Canadian Publication No. 2407810 would be applied to the form cylinder (22) of JP'552 as modified by Schaeede.

Regarding claim 98, as best understood, the inking unit module (including 12-14) of Canadian Publication No. 2407810 is removably installed (capable of being removed) on the transport module (including 3) of Canadian Publication No. 2407810. This same removable inking unit module taught in Canadian Publication No. 2407810 would be applied to the apparatus of JP'552 as modified by Schaeede.

Regarding claim 99, Fig. 1 of Canadian Publication No. 2407810 shows that the form cylinder (3) is small, like the counter-pressure cylinder (2), but Canadian Publication No. 2407810 does not explicitly disclose that the form cylinder (3) is of a same size as the output transport cylinder (2) acting as counter-pressure cylinder, as claimed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the size of the form cylinder (3) the same size as the output transport cylinder (2) acting as the counter-pressure cylinder, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. One of ordinary skill in the art would have been motivated to make these two parts the same size, e.g., to simplify the manufacturing process by limiting the number of different sized parts. This same dimensional relationship

between the form cylinder and counter-pressure cylinder taught by Canadian Publication No. 2407810 would be applied to the form cylinder and associated counter-pressure cylinder of JP'552 as modified by Schaeede.

Response to Arguments

9. Applicant's arguments with respect to claims 54-107 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS MORRISON whose telephone number is (571)272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stefano Karmis can be reached on (571) 272-6744. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/15/2011

/Stefano Karmis/
Supervisory Patent Examiner, Art Unit 3653